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ABSTRACT

A new final-year teacher education unit at an Australian university uses action research as a learning process for teacher-interns in rural schools. This year-long unit requires support in the first semester as on-campus students explore action research and identify potential areas for their improvement. Online work at this stage builds the quality and quantity of students' reading as they reflect on their reading on online bulletin boards. They also post their reactions to other students' reflections on the readings online. In the second semester, interns are placed in 10-week internships almost exclusively in rural schools and are supported as they undertake action research to improve their practice. Examination of 75 postings of six students taking their internship found that over half of postings concerned the action research directly, about one sixth were associated with critical friendships, and about one third concerned other postings. Thus, in broad terms, more than two thirds of the postings were related to supporting completion of the project. Online communication has been adopted as the university's key support medium for interns at distant workplaces and as an on-campus learning strategy. The reflective nature of the act of writing, the students' desire to post pieces that could not be 'shot down' by peers, and well-scaffolded online support were effective project elements. (Contains 32 references.) (TD)

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Online support for action research in a teacher education internship in rural Australia

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Abstract

The two themes of this paper are action research and online learning support in teacher internships in rural Australia. A model for the interaction of professional practice, the workplace and the university (Lee, Green & Brennan, 2000) came to inform the conceptualisation of a new final year teacher education unit which uses action research (Kemmis & McTaggart, 1988) as a learning process for interns (cf Beisser, 2000; Grundy, 1995). This year long unit requires support in the first semester as internal students explore action research and identify potential areas for their improvement. In second semester interns (placed in ten-week internships almost exclusively in rural schools) are supported as they undertake action research to improve their practice. The unit has been piloted three times with small groups prior to full implementation in 2001. A move to online communication as the University's key support mechanism for interns at distant workplaces, and as an on-campus learning strategy, was instituted in 2001. This paper reports upon:

1. conceptual developments following pilots of a pre-service unit in which action research during students' internship is the culminating feature;
2. online learning support for one student group's action research projects while on their internship; and
3. early results from the action research project on online learning of neophyte teachers as internal students prior to their experience as interns.

Our move into online work, on campus and off campus in rural areas, has proved to be of particular benefit to most students. The early data vindicate this move in that (a) the students appreciated being 'forced' to read and (b) bulletin boards can provide support for complex projects while off campus.

Introduction

To become a professional teacher several competencies are expected including a strong knowledge base, diversified social, communication and cooperation skills, flexibility to work in different contexts, reflective practice and the capacity to manage information, self and others (McLoughlin & Luca, 2000). According to the Ramsey Report (2000) on NSW teacher education, neophyte teachers can achieve these through

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> *more professional experience in the workplace if New South Wales is to have an effective system of teacher education. ... Experienced teachers and teacher educators must work more closely together. ... The present practicum model in teacher education courses is failing to prepare effectively future teachers for the challenges that they face* (p. 10).

There have been major reports such as *Schooling in Rural Australia* (Boomer, 1988) and *Schooling in Rural Western Australia* (Tomlinson, 1994) and more recently the *Report of the National Inquiry into Rural and Remote Education* (Sidoti, 2000) underlining these kinds of concerns, and more, with particular reference to rural and remote Australia. Such developments and debates need to be understood within an international context (Yarrow, Ballantyne, Hansford, Herschell, & Millwater, 1999) and to the national restructuring processes (Howley 1997). Even in these changing times, teachers **are** required for rural and remote locations yet many neophyte teachers in these contexts suffer from 'socio-cultural dislocation' (Yarrow et al., 1999) and professional isolation (Maxwell & Bennett, 2000).

Alongside this sustained pressure to locate teacher pre-service in the professional workplace, the importance of establishing the value of integrating information technology for pre-service teacher education programs is well documented in the literature (Kay & Mellar, 1994; Robertson, 1996; Stuhlmann, 1998). In these studies, the focus has been on ensuring that teachers have information literacy skills and understand how technology can be employed in pedagogical approaches. A limited number of reports have focussed on the use of multimedia and online technology to develop professional skills among teachers (McLoughlin et al., 2000; Selinger 1996). Pearson concludes that "research is needed to explore ways in which this new medium might contribute to the acquisition and maintenance of professional knowledge"(1999, p. 222). Thus, the present project is intended to contribute to extant research on innovative approaches to teacher education.

In rural and remote settings the Internet has increased importance in teacher education since schools in NSW have been connected. Furthermore, placing [this is a little unclear - in what sense are these institutions being reconnected?] schools, TAFE, and universities into closer relationships acknowledges the potential of the new

knowledges, i.e., where workers are legitimately seen as knowledge producers rather than as knowledge consumers (Scott, 1997). The unit/course entitled the 'Teaching Project' at the University of New England features both Internet support and the potential for new knowledges to impact on pre-service teachers since the major part of the unit is complementary to the ten week final semester internship.

The Teaching Project unit was developed so that the students would have:

- reviewed *professional attributes* profiles and their practicum reports, and created a profile of their own professional attributes;
- identified those which might be improved;
- described and justified a suitable methodology by which the chosen skill development could be addressed;
- justified the planned improvements in teaching technique, with reference to the relevant literature of the aspects of practice chosen;
- described the implementation of the planned improvements, evaluated the evidence by which their impact was assessed; and
- made judgements about what the next action should be in the ongoing development of their professional competence.

These objectives were far more professionally focussed than the university unit on action research reported by Beisser (2000) in the USA. Beisser's students focussed much more strongly upon the development of subject knowledge. We see our objectives as consistent with the move to the new knowledges because they are largely achieved (or not) in the culminating experience of doing action research on site (often in rural or remote communities) and subsequently producing a report based upon that work. Our work in the unit was based upon Grundy's (1995) work on action research in the National Project for Quality Teaching and Learning. There she set out a rationale for the use of action research with teachers. We have extended this professionally-oriented action research into teacher pre-service linked with the internship.

Outcomes from early pilots

We had several opportunities to pilot the unit as it was developed and in doing so learned a number of key lessons.

1. Students could not identify which specific competency their action research would focus upon until they had been in the school for some time. Thus the situational analysis of the school and class were important elements to add to the review of their own practices (conducted on campus using the *National Competency Framework for Beginning Teaching* (NPQTL 1996) as a checklist). This was a timely reminder that decisions about what needed to be improved had to be situated, i.e., grounded *in the workplace*.
2. A highly motived and strongly conceptually oriented student showed the advantage of thinking of situational analysis and reconnaissance as different concepts. Her concept map of the action research process, used as an exercise just prior to the internship, had differentiated between these two by allocating reconnaissance to the review of competencies and situational analysis to the evaluation of the school community and classroom. This extended the Kemmis & McTaggart (1988) model of action research, in which reconnaissance was the general term used for these two processes, and added a valuable dimension which is useful in the context of a pre-service teacher education.

The second point is largely heuristic but the first, in particular, pointed to the need for a stronger conceptual framework for our unit.

Conceptual framework

The key work by Alison Lee, Bill Green and Marie Brennan in *Research and knowledge at work: Perspectives, case studies and innovative strategies* provided the conceptual way forward. Their work focussed upon professional doctoral education as in-service education. Here we apply it to pre-service education. It recognises the importance of the new knowledges and largely follows from Gibbons and colleagues (1994), and others, in which professional learning is constituted as Mode 2 knowledge, which is

> *produced in (the) context of application; transdisciplinary; heterogeneous; heterarchical and transient; socially accountable and reflexive, including*

> *a wider and more temporary and heterogeneous set of practitioners, collaborating on problems defined in specific and localised context* (Lee et al., 2000, p. 124).

They contrast this kind of learning with the more culturally centred, Mode 1 knowledge in which

> *problems (are) set and solved in context governed by academic interests of specific communities (characterised as) disciplinary; homogeneous; hierarchical and form preserving; accountable to discipline-based notions of methodologically 'sound' research practice* (Lee et al., 2000, p. 124).

Like Lee et al., our concern is to construct a 'hybrid curriculum' for the Teaching Project unit, 'a three-way model, where the university, the candidate's profession and the particular work-site of the research meet in specific and local ways, in the (situation) of a specific organisation' (Lee et al., 2000, p. 127). This always occurs within a broader context (political, economic, social and historical environment). The model draws attention to the interaction of (1) the rigour of the university which we invoke by the use of the rigorous Kemmis & McTaggart (1988, 2000) model of action research, (2) the importance of competence and ethical collaboration in the profession through a thorough review of competencies and teacher mentoring, and (3) the complexity of teachers' work situations with their time, place, people and funding realities, including those of the rural and remote school situations. Although university knowledge is accessed at times, professional advice in the internship is seen as crucial for students' professional development.

To delay the students' decisions about the specific question to begin action research cycles until they are on site is consistent with the Lee et al. model. This is because knowledge of the workplace realities is essential. Also their professional colleague can have an impact by providing support and advice about what might be useful to address. The action research in the Teaching Project is thus informed by profession, workplace and university-type knowledges or, at least, will ideally be so.

Gearing up for the full cohort

The early work gave us confidence and a conceptual framework. However, the three pilots were with groups of students less than ten in number and students who were, on the whole, academically able, 'accelerated' students. In 2001, we are aware that this cohort (approximately 80 in number) has in the past not always shown great dedication to tasks set, especially in preparatory reading for workshops. A related concern was the lack of collegiality they had sometimes shown during the previous three years in our BEd program. The essential problem was how to engage the students, professionally and academically. We also anticipated that the on-coming internship would focus students to the realities of the workplaces that they would soon face.

For these and a number of other reasons, we saw online communication as potentially useful as the university's key support medium for interns at distant workplaces. Furthermore, research by Cooney (1998) with high school students indicated that online interaction could be more effective than the traditional face-to-face encounters for engagement of students. This was an important piece of work because of our concern about the lack of rigour of some students' prior on-campus work. The reflective nature of the act of writing, together with the students' desire to post pieces that could not be 'shot down' by peers appeared to us to be worth trying. Others also note that well scaffolded online support can be effective for students' learning (e.g., Grosser 2000; Hendry 2000; Oliver 2000).

The present research

There are two objectives for the remainder of the paper. Here we report upon the

- online learning support from one pilot group's learning while on their internship (the Internship Project); and
- early results from our action research project on online learning of neophyte teachers as internal students prior to their internship (the Campus Project).

The Internship Project

First it is necessary to set the scene. In the first semester of 2001, there were six students undertaking their internship, the last of three small pilot groups to do so. They

had completed the on-campus work of the Teaching Project the previous semester. These interns were connected to one another, and to the unit co-ordinator, via an online bulletin board. Thus this group provided an initial opportunity to explore the extent and ways in which online support has assisted them as they have undertaken their action research. The data here are the students' postings that result from two main sources: (1) structured questions relating to particular features of the action research, and (2) their own postings including questions, and responses to these questions. The postings here were voluntary in the sense that they were not assessed. Discourse analysis of the 75 postings over ten weeks from scaffolded questions and student initiated postings resulted in an interesting picture of off-campus support using this medium during the students' internship. The discourse analysis was supported by NUD*IST (Version 4, QSR, 1997) by the development of a coding tree containing 52 nodes. In what follows we discuss the broad statistics of the postings and the nature of the postings.

Use of the bulletin board varied greatly. There were approximately 1 200 lines of online postings of which almost 40% were by the unit co-ordinator and about 25% by one intern. One student did not make any posting at all and the other four students used the bulletin board to about the same extent, i.e., between 5-12% each. These data are revealing. Two people dominated, although it is not surprising that the unit co-ordinator did so. Further, a little over one half of the postings concerned (a) the action research directly, about one sixth were lines associated with (b) critical friendships and about one third concerned (c) 'other' postings. Thus in broad terms, more than two thirds of the postings were related to the support of the completion of the Teaching Project. We consider each of these three groupings in turn below, focussing on major findings due to space restrictions.

a. Action research

There was quite a lot of thinking to be done by the interns before their planning of the action research. Apart from the focus by the interns upon the classroom (at the expense of the school context), the major point of interest for us as teachers was concern about the several relationships between situational analysis, reconnaissance, the thematic concern (arena of study) and the research question. For example, the relationship between reconnaissance (the profession) and situational analysis (the workplace) was

reasonably well articulated in creating a thematic concern. Intern E illustrates this: *even though it would have been good to have the 4/5/6 class I think that I will benefit when it comes to writing my assignment because I had issues from my prac with Kinder last year that I would have liked to address so now that opportunity has arisen.*

Much more problematic was the creation of an action research question from the thematic concern. Intern B was the most extreme regarding this issue and posted, about week 5: *I have changed my mind so many times concerning my research. At first I had absolutely no ideas. I was panicking and felt like I had a million things happening at once.* Others had problems narrowing the thematic concern to a specific question. Intern C: *So possibly I will look at behaviour management for my AR ..., or possibly catering for individual needs.* Intern D responded: *you have an interesting class to work with ... You mentioned Behaviour Management as a possible focus for your AR* (action research) *... it is such a broad concern ... have you thought of a specific aspect of BM yet? I suppose you need to ask management of what? (Can it be changed?)* The unit co-ordinator also responded: *Seems to me that you have identified the thematic concern (student management in a composite class). What you need to do now is to get this focussed. What is the specific question that you are going to research? Make it an important one so that the effort is not wasted.* As well, Intern D identified her question but was still uncertain. *"How can I influence the frequency of interruptions occurring from students who have been set other tasks to work on while I work with a guided reading group in a year 3/4 classroom?" I still feel this question is a bit 'fuzzy' - probably more in the sense of the language I have used rather than the actual idea.* Definition of the action research question that mattered, and was at the same time manageable, emerged as an important issue for the teaching team.

The definition of the research question appeared crucial in another way. Consider the comment from Intern A that is illustrative of a problem of about half of the interns. Intern A's question was: *"How can I improve students' involvement/participation/ understanding during explicit teaching of new text type concepts so as to enhance/improve the finished published piece of English literature?"* He went on: *My problem is that whenever students are involved in non-structured activities - they are off the air, and because of this the students very rarely are exposed to activities such as brainstorming and think/pair/share activities. Another problem has been editing*

and as a consequence I have decided to make editing a compulsory English activity every morning. The unit co-ordinator replied: *My first response is that you are perhaps too wide in your question and that data on this would most likely correspond to a situational analysis/reconnaissance-type of data. Having said that you could use data gathered on this question to inform the next round/cycle of AR. ... In AR be sure of the question and make it important so that the data are addressed to that question to make it worth your while.*

At issue here is the relationship between the data gathered as part of situational analysis and an action research cycle(s). This is again illustrated by the following response to Intern B's *question regarding the data about ... attending behaviour being part of a cycle or part of the situational analysis/reconnaissance was part of my post to (Intern A) earlier today. The answer revolves around what you were intending when you gathered that data. Was it part of a more general data gathering exercise, or was it gathered in response to a specific question asked and, actions planned, etc? If the latter then it is part of an AR cycle.* The flexibility of action research can be seen here to cause some difficulties. In the interns' terms the issue that they are trying to come to terms with as they navigate their internship work is: How do I distinguish between situational analysis and an action research cycle? This is also an issue that the teaching team will need to address and may require more than identifying the research question as the key signpost.

The issue is one of the relationship between the complexities of the workplace and the demands of the profession. But an allied concern, as identified by the data from these six interns, was the apparent lack of consideration of literature (Academe). Only three of the students mentioned the issue of connecting to their work to the research traditions found in the literature though half reported seeking advice from their teaching colleague.

All these issues gain greater currency when it is recalled that the interns' action research is developed into a report that constituted two thirds of the final assessment (for this cohort but not for the Campus Project cohort). Interns also asked about the place of appendices, the appropriate use of tense and a number of questions about the use of the key features of action research in the report itself. What appeared to be at

issue in this latter case was the extent to which (a) the action research cycles could be separated from the action going on in the classroom and (b) the elements of the cycle could be separated from one another. Even though this last point had been addressed in class (separation is an heuristic device and inter-relationships clearly exist) there was uncertainty in some students' minds as they came to the actual task of writing. Intern E put her finger on this issue thus: *we just wanted to double check that the AR design... was where (we) summarised our plan, using the steps Plan, Act, Observe, Reflect ... Lastly how many cycles does everyone else plan to do? I presume that similar questions will appear on the WebCT because when you begin to write the assignments we either never asked the questions or have forgotten the answers.* There is nothing like doing to clarify key points!

b. Critical friends

The action research literature is very clear about the importance of support provided by critical friends in successfully in successfully undertaking an action research project (e.g., Elliott, 1991; Kemmis McTaggart, 2000 & Stringer, 1999). About one sixth of postings was devoted to this issue. Interns identified their teacher colleagues as supportive in three out of five cases but the online postings indicated that the interns themselves, and the unit co-ordinator, also acted as critical friends. This issue had been raised in the first semester classes but no activities had been specifically undertaken to develop the skills required (unlike in the Campus Project where this had been anticipated as a necessary component). Approximately two thirds of postings identified as illustrative of critical friend-type responses were attributed to the interns while one third were posted by the unit co-ordinator. Responses of this kind were person oriented, e.g., *Hang in there (Intern E) I'm sure that you are doing the best job that you can and that your efforts are appreciated. The stress is getting to me too, and my class is quite small* (Intern C), or task oriented, eg, *I hope to start writing more about AR on WebCT, as I am finding that when I write I start to piece everything together.... maybe we need to talk more often through WebCT so our brain energy is shared...*(Intern D). There was little evidence of the critical analysis associated with the notion of "critical friend", however. This last quotation illustrates the potential of bulletin board postings, ie, learning by writing. Furthermore, such text can be used in the final report! The lecturers associated with this unit have some thinking to do here.

c. Other

Other postings constituted about one third of all postings, of which the majority were unit administration (40% of this set), socialising (38%) and technical and other problems (15%). The unit co-ordinator posted scaffolding questions and generally used the bulletin board to retain contact with interns on issues such as their need to be sure about Teaching Project deadlines. Social interaction was not at all discouraged. Much of this concerned the usual interactions of friends/colleagues as well as sorting out the final requirements of their degree. Technical problems were few but other major problems identified were finding time to complete the action research of the Teaching Project within the internship. On this issue Inter D put it best: *Teaching is certainly a delicate balancing act. ... I have spent a lot of time program(ming), marking etc and wonder where I will find the time to tie up the Action Research side of things. This is not for the faint hearted! ... a true test for stamina ... which is probably an essential attribute one must have in this profession.*

Conclusions to the Internship Project

We are encouraged to continue the use of online support for students' action research projects while they are on their ten week internship though we note the great variation in the interns' use of the bulletin boards. This pilot has, in addition, highlighted some concerns related to action research and the interns' professional development, ie, the interaction between the workplace, the profession and academe. Chief amongst these is the centrality of the definition of the specific action research question(s) and its relationship to the thematic concern. Related to this is the issue of the students' apparent difficulty in distinguishing between situational analysis and cycles of action research. It was gratifying to see that there was an understanding, at least amongst these six interns, of the relationship between their situational analysis and reconnaissance. More work is needed to develop critical thinking/relating skills yet at the same time maintaining the friendship dimension of the interns' responses to one another.

The Campus Project

During this same semester, the first cohort of 80 students have been enrolled in the Teaching Project. For them the online work is undertaken on campus and directed to

their learning. The main intention of the online work with this cohort at this stage is to build the quality and quantity of students' reading in the unit. Some key features of this online learning are that the students:

- read pre-specified text or resource materials and submit online a critical analysis of the readings using a set scaffolding question provided each week on the bulletin board. They respond to each others' critical analyses online using a web buddy system. A significant weighting for these postings has been included in student assessment to cover online work. All postings must be made prior to a specified time each week. Students contribute satisfactorily to nine out of nine of the weekly online communications or else submit a 1000 word analytical summary of the readings for the week missed; and
- have satisfactory attendance (defined as seven out of nine) at weekly workshops designed to maximise students' opportunity to address the concepts and relationships between concepts introduced in the readings. Workshops take an activity-based approach and build upon the prior online learning. Critical reflection is used in workshops but it is also evident in a 'virtual' form online.

In summary, the learning process, as we have structured it, operates in a sequence of students 1) reading, 2) reflecting in writing and posting this on line, 3) reading other students' reflections, 4) responding to the reflective comments of a web buddy, and 5) meeting as a workshop group to review the readings and the meanings that have been made from them in relation to the students' own growth as reflective practitioners.

These points contrast with the experiences of these students in online work in the semester before. Here an un-scaffolded forum and large numbers in the forum had militated against quality interactions so that there were clear negative feelings associated with online work for some students prior to commencing this unit.

As part of our own action research we are re-visiting established ideas of writing theory (Barnes, 1968; Murray, 1982) exploring the idea that writing enables thinking and reflection, and in some ways might be understood as more conducive to reflection than speaking. We want to see how these understandings about the power of writing to assist thinking can be made use of in the virtual environment to improve both the

quality and quantity of learning (cf Cooney, 1998). Thus students' work online is used to process what they have read and to create their own meanings of what they have read. This is achieved by writing and by responding in writing to what others have written. We are thus making use of the asynchronous features of the WebCT software via the Internet to promote critical reflection. Another important objective of the asynchronous online work is for the students to build their skills and confidence in the use of technology so that they are very proficient online by the time they disperse from the campus for their internship.

All students were asked, without coercion, to respond to two items in the last Term 1 classes: '(what were the) benefits of the reading/online posting–workshop process so far:' and '(what are the) ways we could improve the process in Term 2'. 69% of students responded to this invitation, and our analysis of these provides useful support for the value of the online postings for students' own perceptions of their learning. In total, students made 77 comments about the benefits to them of the structure provided in the unit, 44 suggestions for improvement and four comments that did not provide suggestions but raised problems for us as teachers.

In what follows we discuss these responses in three sections: a) student perceptions of benefits accruing to the structure imposed in the unit, b) student suggestions for improving the implementation of this structure, and c) student perceptions of the problems associated with this learning environment. For reasons of space, we discuss only the most common student response categories in each section.

a. Student perceptions of benefits accruing to the structure imposed in the unit

By far the most common comment from students (32 in all) related to the benefits the students saw in being able to access other people's responses to the readings. Comments of this nature were related to the opportunity that the forum provided to *read what our peers think*, *learn from peers*, and *be able to read thoughts and ideas without having to respond*. This last comment was made in conjunction with the point that reading other people's reflections on line allowed the student to *see points you might have missed*. One student noted that s/he also enjoyed *accessing* ***everyone's*** *reflections on the readings*. Another wrote: *It makes us not just read the info but look*

at how it affects us and it is interesting to see others views as some people don't ever express themselves to that extent in class.

The key point in these last two comments is that in any class discussion, not everyone gets a chance to speak. Those who are the most vocal, and who are used to having their opinions heard in class, are repositioned in the online forum as having one turn to speak among many, and their opinions are not necessarily the most useful, or interesting to their peers. As one student wrote: *we often don't see our own views as novel so they otherwise mightn't be shared.* The comment about being *able to read thoughts and ideas without having to respond*, along with others such as *I like to go away and think about things,* and *[it's good to] know whether you're on the right track without embarrassment of looking dumb in class*, we think, suggests that several students, even in their final year of pre-service teacher education, do not feel confident in voicing and defending their opinions in public. We therefore see the practice that is provided for them to do this on the online forum, safely, after checking out the scene, is a valuable learning opportunity for them. We feel that paradoxically this produces a much more inclusive climate than the face-to-face class situation, for while in a class discussion everyone is expected to participate, in the online forum discussion everyone **does** participate.

One of the foundational tenets of educational theory is that people learn by doing. If students do not read and think about the material provided in a unit, or if they think about it only during class time and assignment preparation, there is considerably less opportunity for them to be actively engaging with the ideas and understandings they are being invited to take up. 23 of the 55 students actually commented that the structure of the unit was of benefit to them because they recognised the value to their study of being forced to read and think. Comments such as *the readings are actually done; it keeps me on task and on time;* and *it **makes** you do the readings and reflect* are typical of these. We are not surprised by the high number of comments of this nature. In designing the unit we had worked specifically with the need to ensure that all students had read and considered the compulsory reading prior to workshop discussion. The stringency of our assessment of participation in this regard has been a successful strategy in ensuring that students actually do the work.

The category of responses that were next most frequent in relation to student perceptions of the benefits of the reading/online posting/workshop structure was to do with the value students saw in the content material of the unit, once they actually engaged more fully with it. 10 students made comments related to this, some noting the benefit in *gaining information on different forms of AR*, while others wrote that *the readings are valuable, readings are relevant/helpful/beneficial/interesting*. One student reflected on this that *reading followed by postings means a better focus and higher interest due to the fact that we actually have to do something with the information*. As teachers we are pleased with the meta-cognitive pedagogical thinking evident in comments such as this, and in comments such as *our knowledge of action research is being built on which allows for greater comprehension [as we read more]*, and take this as an indicator of success for the process. But the student comments also provide us with several useful suggestions for improving the process and management of their learning.

b. Student suggestions for improving the implementation of this structure

The most common category of suggestion related to streamlining the structures we had set up for bulletin board posting. 12 students made comments about this, and their suggestions were of two types. First were requests for the postings to be more easily retrievable after the deadlines, with suggestions such as: *don't wipe postings at 5pm. What if we haven't read a reply?* and *WebCT could be open for printing straight after 5pm* (7 students). Second, there were several students who suggested that we should *have a compulsory deadline for posting so that responding can be done thoughtfully* (5 students). These comments are clearly both pertinent and practical. The problem of postings being 'wiped' was fixed by the time of these reflections, as this was already apparent to staff as well as students.

Because all responses to one's buddy's reflections had to be posted by the deadline, people whose buddies were late in posting often found that they were rushing to compose a reply in time for the deadline, rather than in a careful and thoughtful manner. We need to find a way to circumvent this problem, and the suggestion to have a *deadline for (initial) posting* is both sensible and obvious, at this point in our research cycle. Whether we set the deadlines ourselves or consistently remind students

to set their own deadlines within the pairs might be a matter of negotiation for the planning of our next action cycle, in Term 2.

Four students asked for *allocated computer time* during which their group could have privileged access to the computer labs, and another three requested more teacher intervention: *If we are off track.. we need to be told; I'd like some concrete conclusions drawn in class*, and one wanted *feedback*.. There were 14 individual suggestions were made about improving workshops, either by *increasing discussions in workshops* (1 person), relating discussion either more *to the readings* (1), or *less to the readings* (3) and more to *assessment* (1) and the *internship* (3). There were suggestions to have *smaller classes* (1), *another workshop* each week (2), and more *readings, videos and references* (2). Three other individual suggestions were made, with students asking for *more information on the buddy system* (1), decreasing the *number of online postings* (1) and *deleting irrelevant messages* (1). There were also several suggestions (5 students) for a change to the scaffolding questions for the reflection each week. Requests that there be *not just one*, that we have *more variety*, and that the questions should be *optional*, suggest that this is another area we can profitably focus on for our next action step.

c. Students' perceptions of the problems associated with this learning environment

Finally, there were four comments that relate to the unit as a learning environment:

- *some readings are difficult*;
- *how can we stop everyone saying the same thing? Reading the same thing, in some cases, 15 times!*;
- *replies are limited by what your buddy writes. Some entries are hard to reply to*; and
- *one person in our threesome has made one posting and I am not available to WebCT on Mondays.*

Reading these comments reminds us of the range of concerns that students bring to the learning environment, and which we need to deal with. Yes, some readings are difficult to comment on 'on your own', and some people do seem to say the same sorts

of things in response to them. And when your buddy writes the same as everyone else, it is difficult to reply with originality and enthusiasm, and when you cannot access a computer on the day your forum closes, you are reliant on your web buddy to have posted her/his reflection well before this time. Even being in a 'threesome' makes the process just that much more difficult. We know the constraints that operate within the unit, on both the electronic environment and the human environment, and we are keen to continue the action research process in the attempt to accommodate these constraints into successful learning practice for the students.

Conclusions to the Campus Project

The Campus project so far has seemed to us to have achieved some of its key learning goals - to ensure that the students are familiar with the literature on action research, have read a range of action research reports, and are confident in their knowledge of the action research spiral (Kemmis & McTaggart, 1988) with which they will conceptualise and begin their own action research in their internship schools next semester. Like any action spiral, though, our struggle thus far leaves us ready to take the next steps to improve our situation after reflecting on the evidence we have collected about our progress. While we are pleased that so many students have recognised and reported on the benefits of the program as we also see them, we note with concern the pleas of those few students who are obviously still struggling to claim their own positions as reflective practitioners in their own right.

That three students still see the 'academic' authority of the lecturing team as necessary to authorise their learning is of concern, even if the students' lack of confidence is a marker of their diffidence and desire to do the best they can. These comments indicate far more than a dependence on us to 'give a good mark', in our opinion. They also indicate that, for these students at least, the whole meaning of action research as a tool for the development of professional knowledge and growth is not yet clear. Along with the practical changes that our analysis of the data presented here suggests as necessary for our future action, we also need to take steps to ensure that all the students come to understand, before they commence the internship, that their future learning as professional teachers relies on their action and reflection at the intersection of their workplace, their professional reading and the university. They need to know *If [they] are off track* ... at this point in their career, in relation to their peers and to the reading

they are engaging with. We need to ensure that they are helped further towards making this judgement themselves.

Conclusions

The development of the Teaching Project unit, which spans university and workplace sites for learning in the profession, provided an opportunity to show the usefulness of piloting the unit prior to its implementation with a full cohort of students. These pilots assisted us in refining the conceptual base of the unit by incorporating the three-sphere model of 'profession', 'workplace' and 'university', as well as modifying the Kemmis and McTaggart action research model for neophyte teacher use. This modification entailed a distinction being made between reconnaissance (review of teacher competencies) and situational analysis (an analysis of community, school and classroom realities) and combining these to create a research question of the student's choice. We found, however, that within the pilot Internship Project specifying the research questions was one of the most problematic issues.

Our move into online work, on campus and off campus in rural areas, has proved to be of particular benefit to students. The early data vindicate this move in that the on-campus students appreciated being 'forced' to read and for the majority of interns in the support that online opportunities provide. What we are aiming for is a much more effective nexus with the profession, the workplace and academe through this unit and the internship.

To get closer to the effectiveness for which we are aiming; there are some thematic concerns that we need to consider in order to improve our unit. From amongst these will come the next action steps within the basic structures that we have established:

- distinguishing between situational analysis and aspects of an action research cycle;
- connecting the action research to academe (via the literature) as well as to the profession (via collegial advice);
- ways to identify the action research component from within a general thrust to improve workplace professional competence;
- developing critical friendships, especially the capacity to be critical yet retain rapport; and
- achieving students' control of their own learning.

REFERENCES

Barnes, D. (1968). *From communication to curriculum*. Harmondsworth: Penguin.

Beisser, S.R. (2000). Posing questions ... solving problems: Action research for preservice teachers. Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, April.

Boomer, G. [Chair] (1988). *Schooling in rural Australia*, Canberra: Curriculum Development Centre.

Brock, P. (2000). *Two decades of 'sound and fury' but what's changed . . .?*. Sydney: NSW Government Printer.

Cooney, D.H. (1998). Sharing aspects within *Apects*: Real-time collaboration in the high school English classroom. In Bonk, C.J. & King, K.S. (Eds.) *Electronic collaborators: Learner-centred technologies for literacy, apprenticeship, and discourse* Mahwah, NJ: Lawrence Erlbaum Associates.

Elliott, J. (1991). *Action research for educational change*. Milton Keynes: Open University Press.

Gibbons, M., Limoges, C., Nowotny, H., Schwartzman, S., Scott, P. & Trow, M. (1994). *The new production of knowledge: The dynamics of science and research in contemporary societies*. London: Sage.

Grosser, M. (2000). Using innovative online technology solutions for the flexible delivery of training. Proceedings of the 4th International Conference on Open Learning, Brisbane, December.

Grundy, S. (1995). *Action research as professional development*. Occasional Paper #1, Innovative Links Project, Canberra: AGPS.

Hendry, J. (2000). You're not alone – Online support for distance students. Proceedings of the 4th International Conference on Open Learning, Brisbane, December.

Howley, C.B. (1997). Studying the rural in education: Nation-building, 'globalization', and school improvement. *Education Policy Analysis Archives*, *5*(12).

Kay, J. J., & Mellar, H. G. (1994). Information technology and new primary teachers. *Journal of Computer Assisted Learning, 10* (3), 157-167.

Kemmis, S. & McTaggart, R. (Eds.) (1988). *The action research planner*. (3rd ed.) Waurn Ponds: Deakin University Press.

Kemmis, S. & McTaggart, R. (2000). Participatory action research. In Denzin, N.K. & Lincoln, Y.S. (Eds.) *Handbook of qualitative research* (2nd ed.) Thousand Oaks: Sage.

Lee, A., Green, B. & Brennan, M. (2000). Organisational knowledge, professional practice and the professional doctorate at work. In Garrick, J. & Rhodes, C. (Eds.) *Research and knowledge at work: Perspectives, case studies and innovative strategies*. London: Routledge.

Maxwell, T.W. & Bennett, T. (2000). Isolation and teachers' work. In Maxwell, T.W. & Ninnes, P. (Eds.) *The context of teaching*. (2nd ed.) Armidale: Kardoorair Press.

McLoughlin, C., Baird, J., & Pigdon, K. (2000). Fostering teacher inquiry and reflective learning processes through technology enhanced scaffolding in a multimedia environment. *Proceedings of Ed Media-Ed Telecom: World Conference on Educational Multimedia and Hypermedia*. Charlottesville, VA: AACE.

McLoughlin, C., & Luca, J. (2000). Developing professional skills and competencies in tertiary learners through online assessment and peer support. *Proceedings of*

Ed Media-Ed Telecom: World Conference on Educational Multimedia and Hypermedia. Charlottesville, VA: AACE.

Murray, D. (1984). *Learning by teaching*. Montclair, NJ: Boynton/Cook.

NPQTL (National Project in Quality Teaching and Learning) (1996). *National competency framework for beginning teaching*. Canberra: AGPS.

Oliver, R. (2000). Creating meaningful contexts for learning in web-based settings. Proceedings of the 4th International Conference on Open learning, Brisbane, December.

Pearson, J. (1999). Electronic networking in initial teacher education: Is a virtual faculty of education? *Computers and Education, 32*, 231-238.

QSR (Qualitative Solutions and Research P/L) (1997). *QSR NUD*IST: User guide* (2nd ed.) Melbourne: Sage.

Ramsey, G. (Chair) (2000). *Quality matters – Revitalising teaching: Critical times, critical choices*. Executive Summary, Report of the Review of Teacher Education, New South Wales, Sydney: Government Printer.

Robertson, J. (1996). Promoting IT competencies with student primary teachers. *Journal of Computer Assisted Learning, 12*(1), 2-9.

Scott, P. (1997). The postmodern university? In Smith, A. & Webster, F. (Eds.) *The postmodern university? Contested visions of higher education in society*, Buckingham: Society for Research in Higher Education and Open University Press.

Seliger, M. (1996). Beginning teachers using information technologies. *Journal of Information Technology for Teacher Education, 5*(3), 253-270.

Sidoti, C. (Chair) *Report of the National Inquiry into Rural and Remote Education*, Canberra: Human Rights and Equal Opportunity Commission (HREOC).

Stringer, E.T. (1999). *Action research* (2nd ed.) London: Sage.

Stuhlman, J. (1998). A model for infusing technology into teacher training programs. *Journal of Technology for Teacher Education, 6*(2/3), 125-139.

Tomlinson, D. [Chair] (1994) *Schooling in Rural Western Australia: The Ministerial Review of Schooling in Rural Western Australia*, Perth: WA State Government.

Yarrow, A., Ballantyne, R., Hansford, B., Herschell, P. and Millwater, J. (1999). Teaching in rural and remote schools: A literature review. *Teaching and Teacher Education, 15*, 1-13.

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